

# NIBS National CADD Standards Project

## TSC PLOTTING GUIDELINES

TSC Plotting, General, Michael L. Herman, **Why not combine** AIA Layering Guidelines and TSC Plotting Guidelines into One?

**Response:** TSC Guidelines contain additional levels/layers specific to tri-service personnel requirements.

TSC Plotting, General, Michael L. Herman, We **need pen numbers** so that everyone assigns the same pen to the same width. Such as Pen #1 = .18mm, Pen #2 = .25mm etc. thru Pen #8.

How about an easy to follow list:

Color #1, Pen #1, Line width .18mm

Color #2, Pen #2, Line width .25mm etc.

**Response:** With the diversity of pen plotters and printers available, it would be very difficult to develop a pen table that would suit every device. Therefore each site will be responsible for setting the correct weight to the corresponding color.

TSC Plotting, General, Michael L. Herman, Why use only **colors** #1 thru #8? Why not 16 colors? or 256 colors?

**Response:** Due to varying output hardware at different sites, it would be difficult to expand the colors allowed beyond the first common eight.

DOD Tri-Services Plotting Guidelines, E. Scott Okes, **Issue - General Comment;** This document needs some sort of introduction and explanatory notes consistent with the AIA Cad Layer Guidelines and CSI Uniform Drawing System.

**Response:** Explanatory notes can be found in the Tri-Service A/E/C CADD Standards document. This is available from the Center's homepage at [tsc.wes.army.mil](http://tsc.wes.army.mil). Also the pages of this document are not numbered correctly, some numbers are duplicated and some are skipped. **Response:** This will be corrected for the final Release 1.7 document.

DOD Tri-Services Plotting Guidelines, E. Scott Okes, **Issue - General Comment;** These lists do not include the major group layers without the minor group modifiers like the Cad Layers Guidelines does so that simple projects can use the shorter format.

**Response:** The simplified levels/layers can be found in Appendix D of Release 1.7.

DOD Tri-Services Plotting Guidelines, page B2, E. Scott Okes, **Issue - Keyplan;** Add layers or separate model file types for G-SITE (site plan - key map), G-ACCS (access plan), G-FIRE (fire protection plan), G-EVAC (evacuation plan), and G-CODE (code compliance plan) to match Cad Layers Guidelines p. 20 column 1 lines 11-15.

**Response:** G-SITE will be added to the Keyplan model file. The other items are covered under the Architectural Life Safety Plan model file.

DOD Tri-Services Plotting Guidelines, page B2, line 8, E. Scott Okes, **Issue - Keyplan;** Revise layer G-FLOR-OTLN to G-PLAN-OTLN to match Cad Layers Guidelines p. 20 column 1 line 10.

**Response:** Will revise to match CAD Layer Guidelines.

DOD Tri-Services Plotting Guidelines, page B2, lines 10-11, E. Scott Okes, **Issue - Key plan;** What is the definition of line style 15?

**Response:** This line style does not exist and will be corrected.

DOD Tri-Services Plotting Guidelines, pages B3-B7, E. Scott Okes, **Issue - Survey and Mapping sheets;** Recommend revising discipline code R- for Survey and Mapping to V- since R is for Resource drawings per Uniform Drawing System p. 01.15. Add layers on these sheets to Cad Layer Guidelines, and add designation V - Survey and Mapping to the list of Discipline Designators in Uniform Drawing System p. 01.15.

**Response:** Concur. However, will defer to the CADD Council.

DOD Tri-Services Plotting Guidelines, page B4, line 23, E. Scott Okes, **Issue - Survey & Mapping Plan;** Line colors Gr/8 & Gr/9 should be 0.18 line weight, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B4, lines 30, 33 & 35, E. Scott Okes, **Issue – Survey & Mapping Plan;** Line colors R for red should be shown as R/1 for AutoCAD and R/3 for MicroStation, plus the line weight should be 0.25, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B4, lines 31, 32 & 37, E. Scott Okes, **Issue – Survey & Mapping Plan;** Line colors Y for yellow should be shown as Y/2 for AutoCAD and Y/4 for MicroStation.

**Response:** Concur, will be fixed.

Dept. of Defense Tri-Services CADD Standard TSC, page 5, line 25, Kevin Busacker, need a **finer width line**. The standard should provide a narrower width like 0.8 mm. The blueline diazo process is rapidly being replaced by large format high output plotters that allow us to produce single generation plots with crisper lineweights of improved clarity.

**Response:** Some sites still use pen plotters to plot drawings. Pen widths thinner than 0.18mm do not show up in 1/2-size reproductions of these drawings.

TSC, page 8, line 25, Kevin Busacker, romans **width factor** too wide 0.85 width factor for romans font is too wide. A narrower width factor like 0.7 or 0.8 would reduce drawing space required for notations and still remains readable at full and half size.

**Response:** Concur, will change width factor to 0.8.

TSC, pages 8-9, entire section, Kevin Busacker, **text height** information omitted There are no guidelines or cross-references to text heights.

**Response:** A text height vs. drawing scale table will be included in Release 1.7 (for both metric and imperial units).

DOD Tri-Services Plotting Guidelines, page B9, line 14, E. Scott Okes, **Issue - Industrial Water Plan**; Line colors M/6 & M/5 for magenta should have line width of 0.35, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B12, line 11, E. Scott Okes, **Issue - Details**; Line colors R/1 & R/3 should have line width of 0.25 not 0.23.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B12, E. Scott Okes, **Issue - Hazmat Details**; Discipline code should be "H" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B16, E. Scott Okes, **Issue - Site Plan**; Add layers listed in Cad Layers Guidelines p. 18 lines 13, 14, 17, 19, 22, & 25: C-COMM-UNDR, C-COMM-OVHD, C-WATR-UNDR, C-FIRE-UNDR, C-NGAS-UNDR, & C-SSWR-UNDR.

**Response:** These items are covered under other disciplines, such as Utilities, HTRW, and Telecommunications.

DOD Tri-Services Plotting Guidelines, page B16, line 13, E. Scott Okes, **Issue - Site Plan**; Recommend adding to major group C-SITE the following minor groupings: -STRS (stairs); -RAMP (ramp); -HRAL (handrails). Also add these layers to Cad Layer Guidelines.

**Response:** Concur, will be added to Release 1.7.

DOD Tri-Services Plotting Guidelines, pages B21-B22, E. Scott Okes, **Issue - Airfield sheets**; Recommend relocating Airfield plans to Civil Works discipline.

**Response:** Will ask the Military Planning Field Working Group for a decision on this.

DOD Tri-Services Plotting Guidelines, page B23, line 7, E. Scott Okes, **Issue - Sections/Elevations**; Revise layer C-ANNO-REVN to C-ANNO-REVS to match Cad Layer Guidelines p. 16 column 1 line 30.

**Response:** Concur, this will be fixed for all disciplines.

DOD Tri-Services Plotting Guidelines, page B23, line 14, E. Scott Okes, **Issue - Sections/Elevations**; Recommend adding to major group C-SITE the following minor groupings: -STRS (stairs); -RAMP (ramp); -HRAL (handrails). Also add these layers to Cad Layer Guidelines.

**Response:** Concur, will be added to Release 1.7.

DOD Tri-Services Plotting Guidelines, page B23, line 19, E. Scott Okes, **Issue - Sections/Elevations**; Line colors Gr/8 & Gr/9 should have line width of 0.18, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B24, E. Scott Okes, **Issue - Civil Details**; Discipline code should be "C" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing

## CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B24, line 5, E. Scott Okes, **Issue - Details**; Layer C-DETL-SYMB should have line width of 0.35 and colors of M/6 & M/5 to be consistent with previous "C" files.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B27, line 21, E. Scott Okes, **Issue - Civil Works Plan**; Line colors C for cyan should be shown as C/4 for AutoCAD and C/7 for MicroStation.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B27, line 27-36, E. Scott Okes, **Issue - Civil Works Plan**; Major group GRAD (grading) should be TOPO (topography) to be consistent with the Civil/Site files.

**Response:** Concur, will be renamed.

DOD Tri-Services Plotting Guidelines, page B27-B28, E. Scott Okes, **Issue - Civil Works Plan**; Recommend adding layers for Bridge, Dams, Waterways, Railways, Sea walls, etc...

**Response:** Will look into this.

DOD Tri-Services Plotting Guidelines, pages B27-B31, E. Scott Okes, **Issue - Civil Works sheets**; Recommend revising discipline code V- for Civil Works to W- since recommended using V- for Survey & Mapping. Add layers on these sheets to Cad Layer Guidelines, and add designation W - Civil Works to the list of Discipline Designators in Uniform Drawing System p. 01.15.

**Response:** Concur. However, will defer to the CADD Council.

DOD Tri-Services Plotting Guidelines, pages B32-B36, E. Scott Okes, **Issue – Geotechnical sheets**; Recommend revising discipline code O- for Geotechnical to B- (boring) since the letter O could be misinterpreted as the number 0 and could make sheet identification confusing if the third character sheet type designator for a particular sheet was the number 0 (general). **Response:** Concur, discipline code will be revised. Also recommend relocating the sheets to between R-Surveying/Mapping and H-HTRW/Environmental. **Response:** Concur. Add layers on these sheets to Cad Layer Guidelines, and add designation B - Geotechnical to the list of Discipline Designators in Uniform Drawing System p. 01.15. **Response:** B is already taken by Buildings/FM.

TSC A/E/C Page 37 Hal Foster, **Reference Files**: The TSC A/E/C CADD Standard Manual provides an explicit citation and illustration of External Reference Files, (Xrefs). I suggest, that the use of this important and powerful tool, be expanded and be made more explicit in the AIA and CSI component standards.

It should also be noted, that CADD Model Files can be, and often are, External References (Xrefs) to Model Files, not just Externally Reference Files to Sheet (Border & Titleblock) Files.

**Response:** Concur, a new figure showing this fact will be added to Release 1.7.

DOD Tri-Services Plotting Guidelines, page B38, lines 14-15, 18-19, & 22-23, E. Scott Okes, **Issue**

- **Electrical Utilities Plan**; It would be easier to read if the line styles for the minor groups OVHD (overhead) and UNDR (underground) were different.

**Response:** Concur, line styles will be changed to reflect underground and overhead lines.

DOD Tri-Services Plotting Guidelines, page B40, line 13-14, E. Scott Okes, **Issue - EMCS Plan**; It would be easier to read if the line styles for the minor groups OVHD (overhead) and UNDR (underground) were different.

**Response:** Concur, line styles will be changed to reflect underground and overhead lines.

DOD Tri-Services Plotting Guidelines, pages B46, E. Scott Okes, **Issue - Domestic water plan/Utilities**; Recommend adding new sheets for model file types for Fire Water (FIRE), Sanitary Sewer (SANR), and Storm Sewer (STRM).

**Response:** Will look into whether these items are sufficiently covered under other disciplines and will create new model files if they are not.

DOD Tri-Services Plotting Guidelines, page B51, line 11, E. Scott Okes, **Issue - Irrigation Plan**; Colors B/5 & B/1 should have line width of 0.18 not 0.28, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B51, line 25, E. Scott Okes, **Issue - Irrigation Plan**; What is the definition of line style 11.

**Response:** This line style will be changed to a dashed line style (3).

DOD Tri-Services Plotting Guidelines, page B52, E. Scott Okes, **Issue - Landscape plan**; Add layer L-WALK-PATT listed in Cad Layer Guidelines p. 21 column 2 line 31, and recommend adding layer L-WALK-OTLN for side walk outline.

**Response:** Will add a Walks grouping with the levels/layers L-WALK-PATT and L-WALK-OTLN.

DOD Tri-Services Plotting Guidelines, page B52, line 7, E. Scott Okes, **Issue - Landscape plan**; What is the definition of line style 11.

**Response:** This line style will be changed to a dashed line style (3).

DOD Tri-Services Plotting Guidelines, page B52, line 22, E. Scott Okes, **Issue - Landscape plan**; Add layer L-PLNT-TURF listed in Cad Layer Guidelines p. 21 column 2 line 23.

**Response:** Turfing is covered under the Landscape Architectural Turfing model file.

DOD Tri-Services Plotting Guidelines, page B53, line 17, E. Scott Okes, **Issue - Turfing plan**; Layer LHYDR-SSSG should have a hyphen after the discipline code L to be consistent with the Standard.

**Response:** Concur, level/layer will be revised.

DOD Tri-Services Plotting Guidelines, page B54, E. Scott Okes, **Issue - Landscape details**; Discipline code should be "L" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B54, line 5, E. Scott Okes, **Issue – Landscape details;** Layer L-DETL-SYMB should have line width of 0.35 and colors of M/6 & M/5 to be consistent with previous "L" files.

**Response:** Concur, will be fixed.

TSC Plotting, Page B57, Michael L. Herman, **Structural Layers,** We will need alot more layers to draw Structural Stacked Plans, (One level drawn on top of the other, and separated for plotting) but I guess we can do this with the modifier and/or status fields. Colors for layers used on Stacked Plans need to be different from one level to another. I would like to see as many layers in the Master List as possible, so that we don't each make up our own. However, if this is to be a STANDARD, it needs to match the AIA Layering Guidelines.

**Response:** We believe a model file for every floor will handle this.

DOD Tri-Services Plotting Guidelines, page B57, line 28 & 29, E. Scott Okes, **Issue - Foundation Plan;** Revise major grouping JNTS to JOIN to match minor groupings in Cad Layer Guidelines p. 23 column 2 line 20.

**Response:** Concur, grouping will be revised.

DOD Tri-Services Plotting Guidelines, page B57, line 34 & 37, E. Scott Okes, **Issue - Foundation Plan;** Revise minor grouping JNTS to JOIN to match minor groupings in Cad Layer Guidelines p. 23 column 2 line 20.

**Response:** Concur, grouping will be revised.

DOD Tri-Services Plotting Guidelines, page B60, line 20, E. Scott Okes, **Issue - Column Plan;** Delete "-P\*" from layer S-WELD-SYMB to be consistent with the other layers this file.

**Response:** Concur, this will be fixed.

DOD Tri-Services Plotting Guidelines, page B63, E. Scott Okes, **Issue - Structural details;** Discipline code should be "S" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B67, line 23, E. Scott Okes, **Issue - Floor plan;** Recommend adding layer A-WALL-FULL from Cad Layer Guidelines p. 16 column 2 line 20.

**Response:** This layer is covered by the levels/layers A-WALL-INTR and A-WALL-EXTR (interior and exterior full height walls).

DOD Tri-Services Plotting Guidelines, page B68, line 24, E. Scott Okes, **Issue – Reflected Ceiling Plan;** Revise layer A-HVAC-OTHR to A-HVAC-ODFF to match mechanical layer noted under description.

**Response:** Concur, this will be fixed.



DOD Tri-Services Plotting Guidelines, page B71, E. Scott Okes, **Issue - Furniture plan;** Recommend adding a model file type named Furniture plan and include the same layers as this sheet plus minor group layers under major group A-FURN in Cad Layer Guidelines p. 17 column2 lines 6-17.

**Response:** The Furniture Plan model file is contained in the Interior Design discipline. Recommend these same levels/layers are not added to the Architectural discipline in order to avoid unnecessary duplication.

DOD Tri-Services Plotting Guidelines, page B72, line 21, E. Scott Okes, **Issue – Building Sections;** What is the definition of line style 11, also page number is shown as A72 but should be B72 to be consistent with the rest of the document.

**Response:** This line style will be changed to a dashed line style (3). Page number will also be revised.

DOD Tri-Services Plotting Guidelines, page B73, E. Scott Okes, **Issue - Architectural details;** Discipline code should be "A" not "D" to be consistent with the Standard. Also, recommend adding to major group A-DETL minor groupings listed in Cad Layer Guidelines p. 18 column 1 line 22, 23 & 25: -MCUT, -MBND & -IDEN.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library. Recommend using only the layers developed for details in the Tri-Service Standards.

DOD Tri-Services Plotting Guidelines, page B77, lines 11-14, E. Scott Okes, **Issue - Life Safety Plan;** Revise discipline code for entire sheet to G for General and major group these layers to G-FIRE to correspond to Cad Layer Guidelines p. 20 column 1 line 13.

**Response:** Defer to the CADD Council.

DOD Tri-Services Plotting Guidelines, page B79, E. Scott Okes, **Issue - Furniture plan;** Add major groupings WALL, DOOR, GLAZ, FLOR, CLNG and associated minor groupings from Cad Layer Guidelines p. 20 & 21.

**Response:** These items are contained in the Architectural Floor Plan model file. Recommend these same levels/layers are not added to the Interior Design discipline in order to avoid unnecessary duplication.

DOD Tri-Services Plotting Guidelines, page B79, line 24, E. Scott Okes, **Issue - Furniture plan;** Revise I-FURN-CASE to I-FLOR-CASE to match Cad Layer Guidelines p. 20 column 2 line 25.

**Response:** Recommend that the layer name stay I-FURN-CASE.

DOD Tri-Services Plotting Guidelines, page B79, line 32, E. Scott Okes, **Issue - Furniture plan;** Recommend revising I-FURN-TABL to I-FURN-FREE to be more generic for free standing tables and desks, and to match Cad Layer Guidelines p. 21 column 1 line 8.

**Response:** Concur, level/layer will be revised.

DOD Tri-Services Plotting Guidelines, page B79, line 34, E. Scott Okes, **Issue - Furniture plan;** Recommend revising I-FURN-MODU to I-FURN-GRID for planning grids to match Cad Layer Guidelines p. 21 column 1 line 31.

**Response:** Concur.

DOD Tri-Services Plotting Guidelines, page B81, line 7, E. Scott Okes, **Issue - Signage plan;** Revise layer I-ANNO-REVN to I-ANNO-REVS to match Cad Layer Guidelines p. 16 column 1 line 30.

**Response:** Concur, this will be fixed for all disciplines.

DOD Tri-Services Plotting Guidelines, page B83, E. Scott Okes, **Issue - Interiors details;** Discipline code should be "I" not "D" to be consistent with the Standard. Also, recommend adding to major group I-DETL minor groupings listed in Cad Layer Guidelines p. 21 column 2 lines 14, 15 & 17: -MCUT, -MBND & -IDEN.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library. Recommend using only the layers developed for details in the Tri-Service Standards.

DOD Tri-Services Plotting Guidelines, page B88, line 7, E. Scott Okes, **Issue - Riser diagrams;** Revise layer F-ANNO-REVN to F-ANNO-REVS to match Cad Layer Guidelines p. 16 column 1 line 30.

**Response:** Concur, this will be fixed for all disciplines.

DOD Tri-Services Plotting Guidelines, page B92, E. Scott Okes, **Issue - Piping plan;** Add layer P-ACID-PIPE (acid, alkaline, oil waste piping) as indicated on Cad Layer Guidelines p. 23 column 1 line 12.

**Response:** This information can be found in the Mechanical Specialty Piping model file.

DOD Tri-Services Plotting Guidelines, page B92, line 10, E. Scott Okes, **Issue - Piping plan;** Add layer P-DOMW-RISR as indicated on Cad Layer Guidelines p. 23 column 1 line 19.

**Response:** Concur, this will be added.

DOD Tri-Services Plotting Guidelines, page B92, line 14, E. Scott Okes, **Issue - Piping plan;** Delete layer P-DOMW-RPIP from piping plan since description even indicates "show only on riser diagram" and this layer is included on Tri-Services Plotting Guidelines p. B93.

**Response:** Riser diagram note will be deleted from the description.

DOD Tri-Services Plotting Guidelines, page B97, E. Scott Okes, **Issue - HVAC plan;** Add following major groups and associated minor groupings listed in Cad Layer Guidelines p. 22 column 1: M-DUST (dust & fume collection system) lines 20-21; M-FUME (fume hood exhaust system) lines 29-30; and M-ELHT-EQPM (electric heat equipment) line 22.

**Response:** Will look into this.



DOD Tri-Services Plotting Guidelines, page B97, line 22, E. Scott Okes, **Issue - HVAC plan**; Add to major group M-EXHS minor grouping listed in Cad Layer Guidelines p. 22 column 2 line 34: - RFEQ (rooftop exhaust equipment).

**Response:** Roof equipment can be created on the same levels/layers as other floor equipment and saved in a separate model file.

DOD Tri-Services Plotting Guidelines, page B97, line 34, E. Scott Okes, **Issue - HVAC plan**; Add layer M-CONT-WIRE as indicated in Cad Layer Guidelines p. 22 column 1 line 18.

**Response:** Concur, this level/layer will be added.

DOD Tri-Services Plotting Guidelines, page B105, E. Scott Okes, **Issue - Mechanical details**; Discipline code should be "M" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B105, line 11, E. Scott Okes, **Issue – Mechanical details**; Line width for colors R/1 & R/3 should be 0.25 not 0.03, coordinate.

**Response:** Concur, will be fixed.

DOD Tri-Services Plotting Guidelines, page B111, E. Scott Okes, **Issue - Lighting plan**; Add major group E-SITE and associated minor groupings listed in Cad Layer Guidelines p. 19 column 2 lines 16-22.

**Response:** This information can be found in the Utilities discipline.

DOD Tri-Services Plotting Guidelines, page B117, E. Scott Okes, **Issue - New Model file type**; Add new model file type: Communications and include major groups listed in Cad Layer Guidelines p. 19 Column 1 lines 34-39 and column 2 lines 3-10.

**Response:** These groups can be found in the Telecommunications discipline.

DOD Tri-Services Plotting Guidelines, page B120, E. Scott Okes, **Issue - Electrical details**; Discipline code should be "E" not "D" to be consistent with the Standard.

**Response:** Concur. However this will involve extensive modifications to the already existing CADD Details Library.

DOD Tri-Services Plotting Guidelines, page B124-B125, E. Scott Okes, **Issue - Security Plan**; Revise discipline code designation from Q- to QY to be consistent with level two discipline designators listed in Uniform Drawing System p. 01.38. List these layers in the Cad Layer Guidelines.

**Response:** Concur. Defer to CADD Council for appropriate character for Security (S, Y, etc.).

DOD Tri-Services Plotting Guidelines, page B127, E. Scott Okes, **Issue - Security Riser Diagrams**; Revise discipline code designation from Q- to QY to be consistent with level two discipline designators listed in Uniform Drawing System p. 01.38. List these layers in the Cad

Layer Guidelines. Revise model file type name to Security Riser Diagrams.

**Response:** Concur. Defer to CADD Council for appropriate character for Security (S, Y, etc.).

DOD Tri-Services Plotting Guidelines, page B123-B129, E. Scott Okes, **Issue – Equipment model files;** Relocate Q (equipment) sheets to between I (interiors) and F (fire protection) to be consistent with the organization of the Discipline Designators listed in Uniform Drawing System p. 01.15.

**Response:** Concur.

DOD Tri-Services Plotting Guidelines, pages B123-B129, E. Scott Okes, **Issue - Equipment files;** Discipline title at the top of each page should be "Equipment" to be consistent with the Discipline Designators listed in Uniform Drawing System p. 01.15. The discipline designation Q- is for Equipment. Since different types of equipment could exist on a particular project, recommend replacing the second character in the code (hyphen) with the level two alphabetical designation listed in Uniform Drawing System p. 01.38. For the purpose of this Standard, recommend replacing the hyphen in the second character with a star (\*), and note that the \* is referencing the level two discipline designators listed on Uniform Drawing System p. 01.38. This can be done with p. B123 Demolition plan, p. B126 Elevations, p. B128 Schedules, p. B129 Legends by using the generic discipline designation Q\*. Need to establish new sheets for generic model file types using the discipline code Q\* for SECT (sections) and DETL (details), including the minor groupings - MCUT, -MBND, -PATT, and -IDEN. Need to establish new sheets for generic model file types using the discipline code Q\* for 1LIN (one-line diagrams) & RISR (riser diagrams), including the minor groupings -LW18, -LW25, -LW35, -LW50, & -LW70. Need to establish new sheet for generic floor plan model file type using the discipline code Q\*, and may want to set up additional model file types for some of the most commonly used equipment types indicated in Uniform Drawing System p. 01.38. Include all new layers in Cad Layer Guidelines p. 23 column 1 line 32.

**Response:** Concur.

DOD Tri-Services Plotting Guidelines, page B131, line 31, E. Scott Okes, **Issue -Communication System Plan;** Layer T-SOUN-IDEN line width for colors R/1 & R/3 should be 0.25 not 0.35, coordinate.

**Response:** Concur, this will be fixed.

DOD Tri-Services Plotting Guidelines, page B133, line 7, E. Scott Okes, **Issue - Riser diagrams;** Revise layer T-ANNO-REVN to T-ANNO-REVS to match Cad Layer Guidelines p. 16 column 1 line 30. Also, AutoCAD line color/# should be R/1 not R/

**Response:** Concur, this will be fixed.